



Title: DATA MODULATION
METHOD AND APPARATUS
Inventor(s): Kinji KAYANUMA
Appl. No.: 10/642,749

NE-1148

FIG. 1

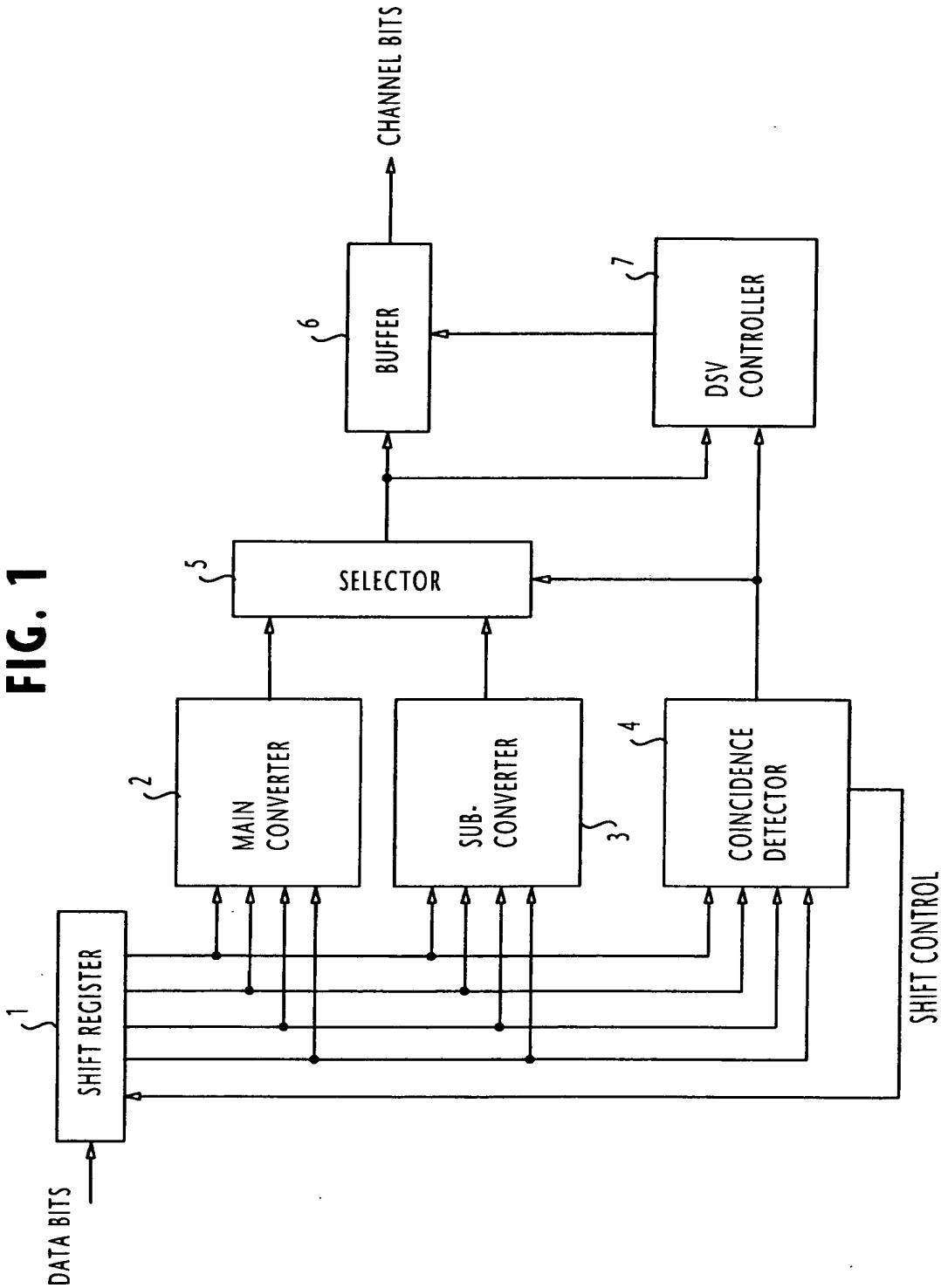




FIG. 2A

MAIN CONVERSION TABLE	
DATA BITS	CHANNEL BITS
0 0	1 0 1
0 1	1 0 0
1 0	0 0 1
1 1	0 1 0

FIG. 2B

SUB-CONVERSION TABLE	
DATA BITS	CHANNEL BITS
0 0 0	1 0 1 0 0 0
0 0 1	1 0 0 0 0 0
1 0 0	0 0 1 0 0 0
1 0 1	0 1 0 0 0 0

FIG. 4

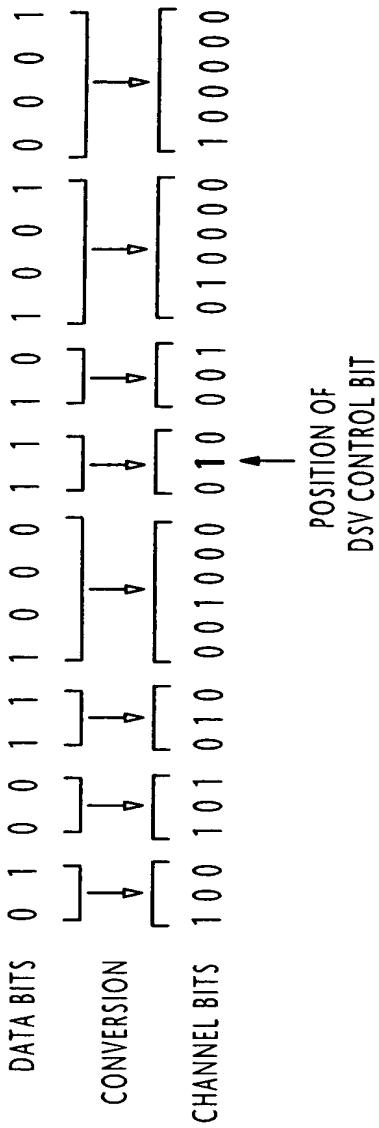




FIG. 3

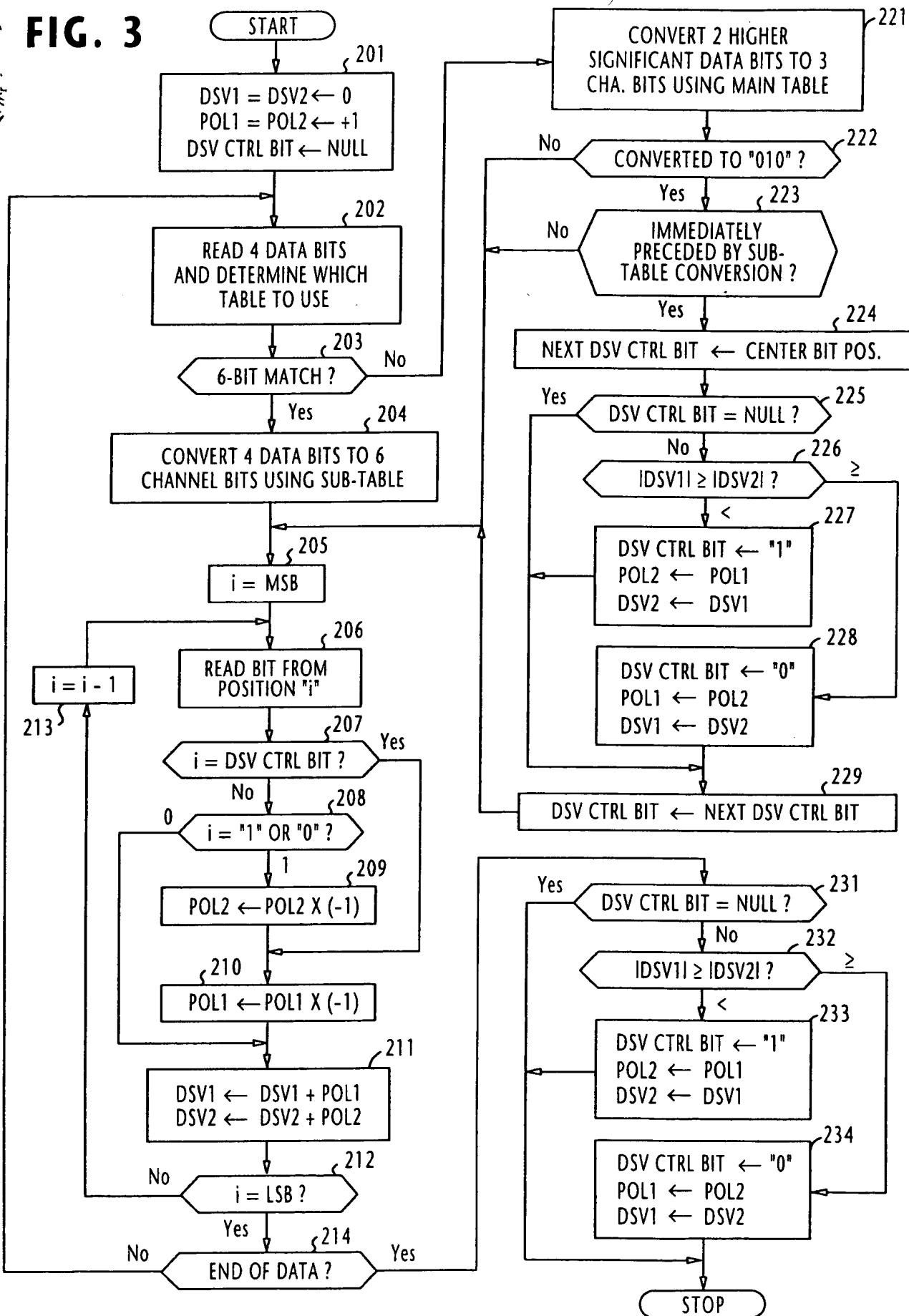


FIG. 5

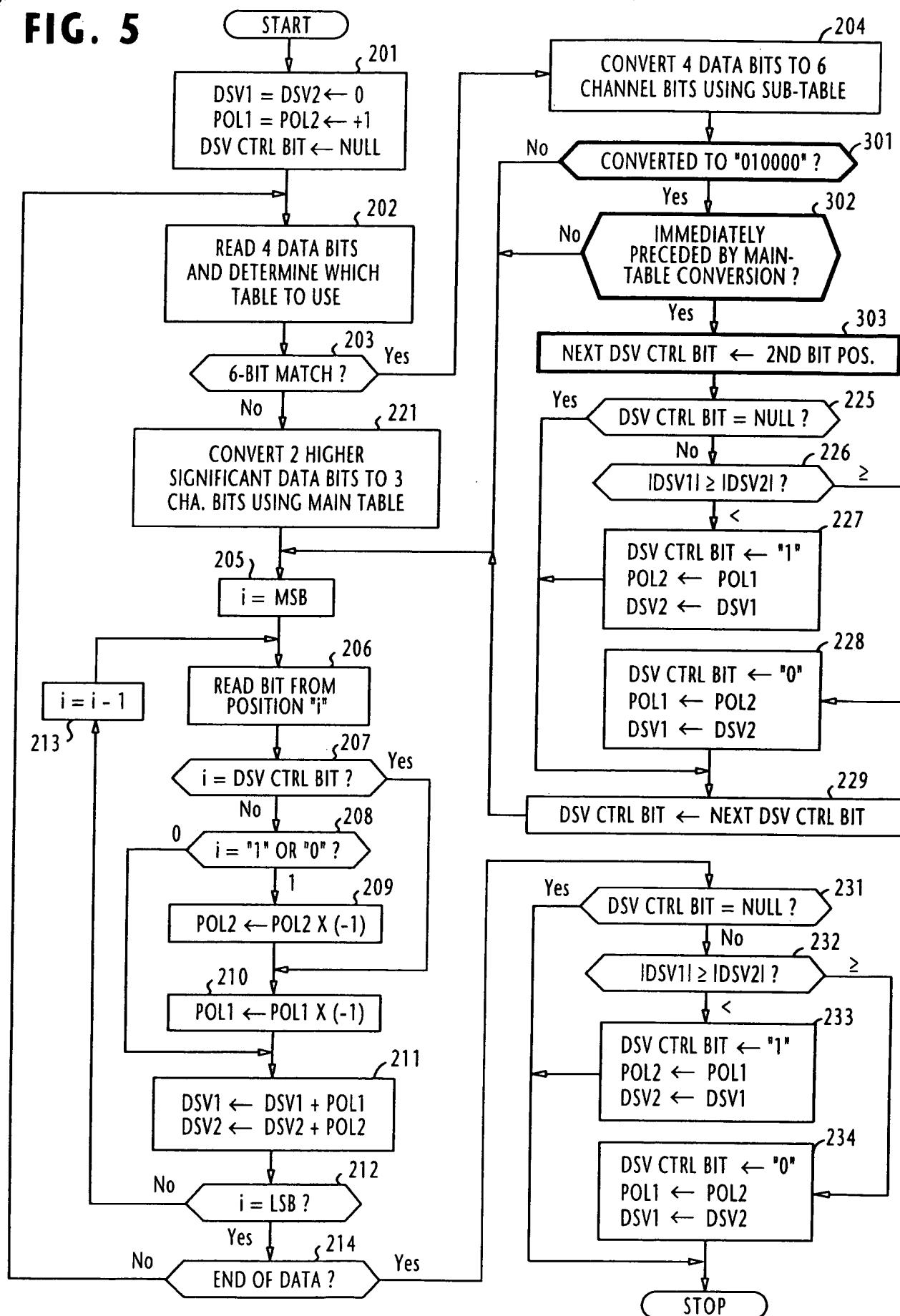




FIG. 6

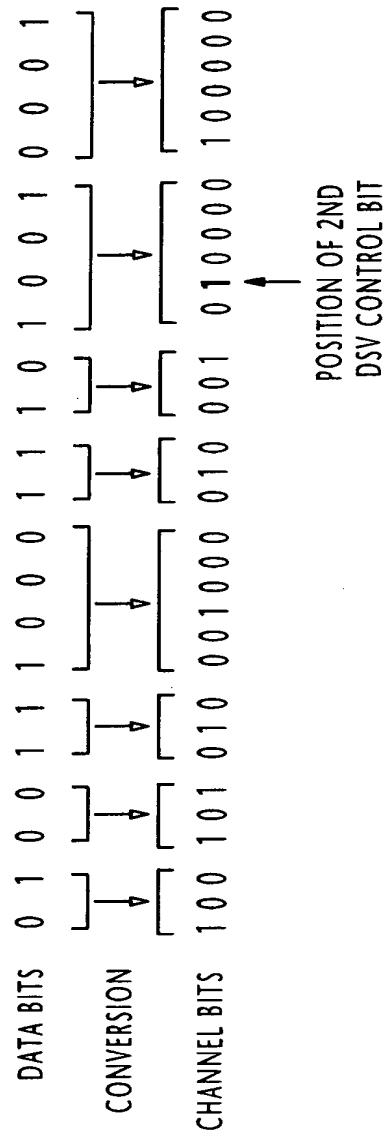


FIG. 7A

MAIN CONVERSION TABLE	
DATA BITS	CHANNEL BITS
0 0	1 0 1
0 1	1 0 0
1 0	0 0 1
1 1	0 1 0

FIG. 7B

SUB-CONVERSION TABLE	
DATA BITS	CHANNEL BITS
0 0 0	0 0 0 1 0 1
0 0 1	0 0 0 1 0 0
1 0 0	0 0 0 0 0 1
1 0 1	0 0 0 0 1 0



Title: DATA MODULATION
METHOD AND APPARATUS
Inventor(s): Kinji KAYANUMA
Appl. No.: 10/642,749

NE-1148

FIG. 8

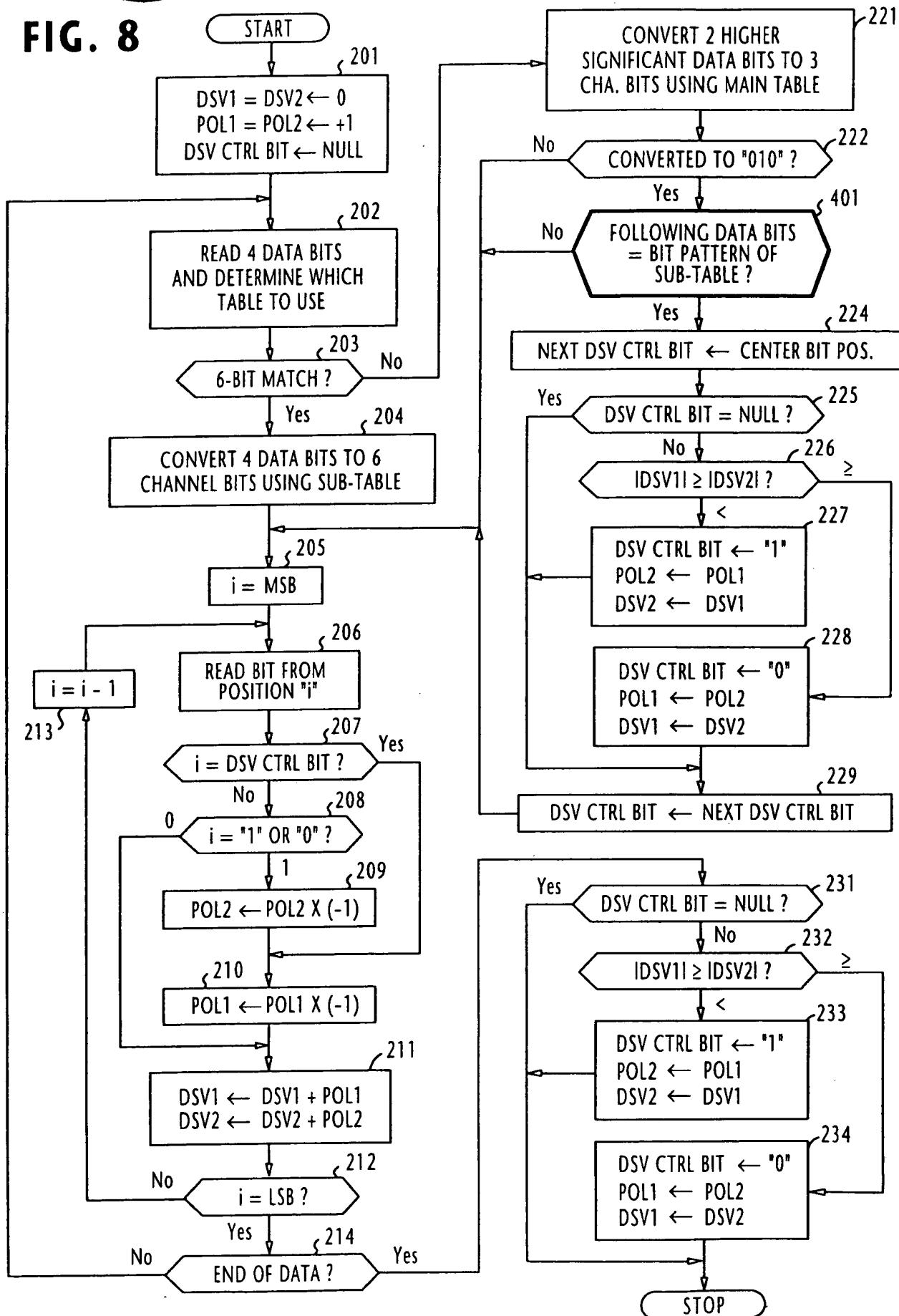




FIG. 9

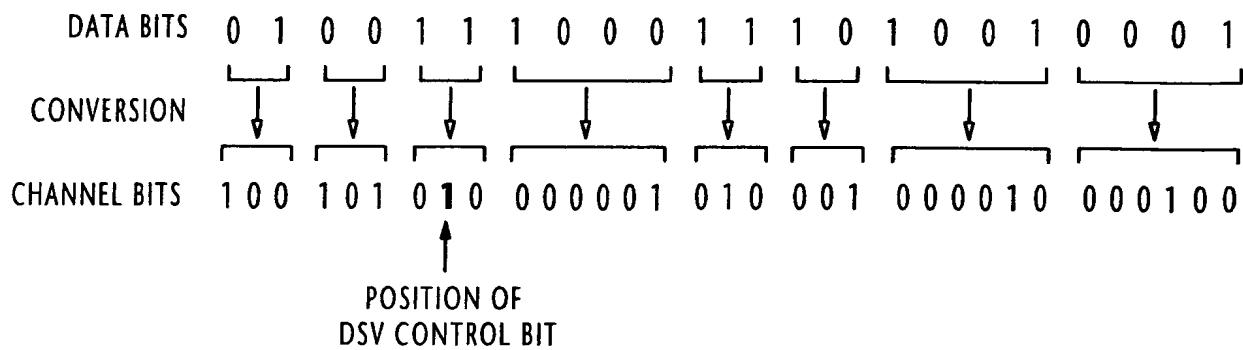


FIG. 11

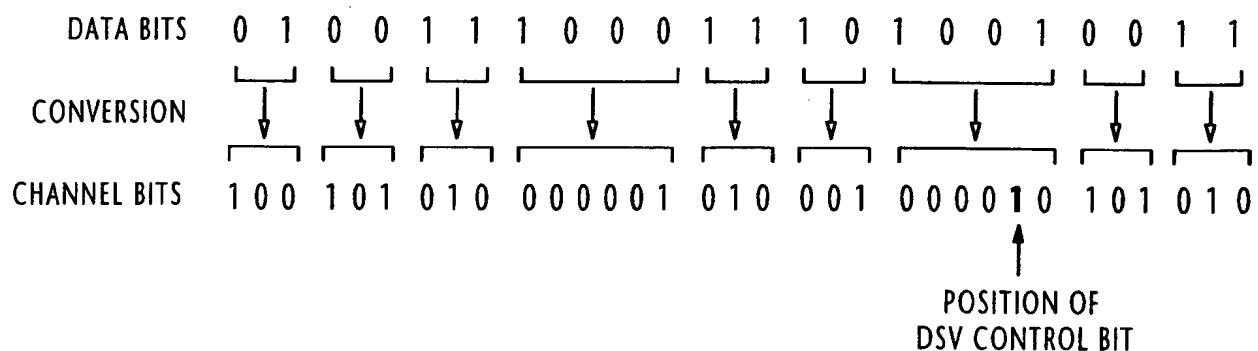




FIG. 10

Title: DATA MODULATION
METHOD AND APPARATUS
Inventor(s): Kinji KAYANUMA
Appl. No.: 10/642,749

NE-1148

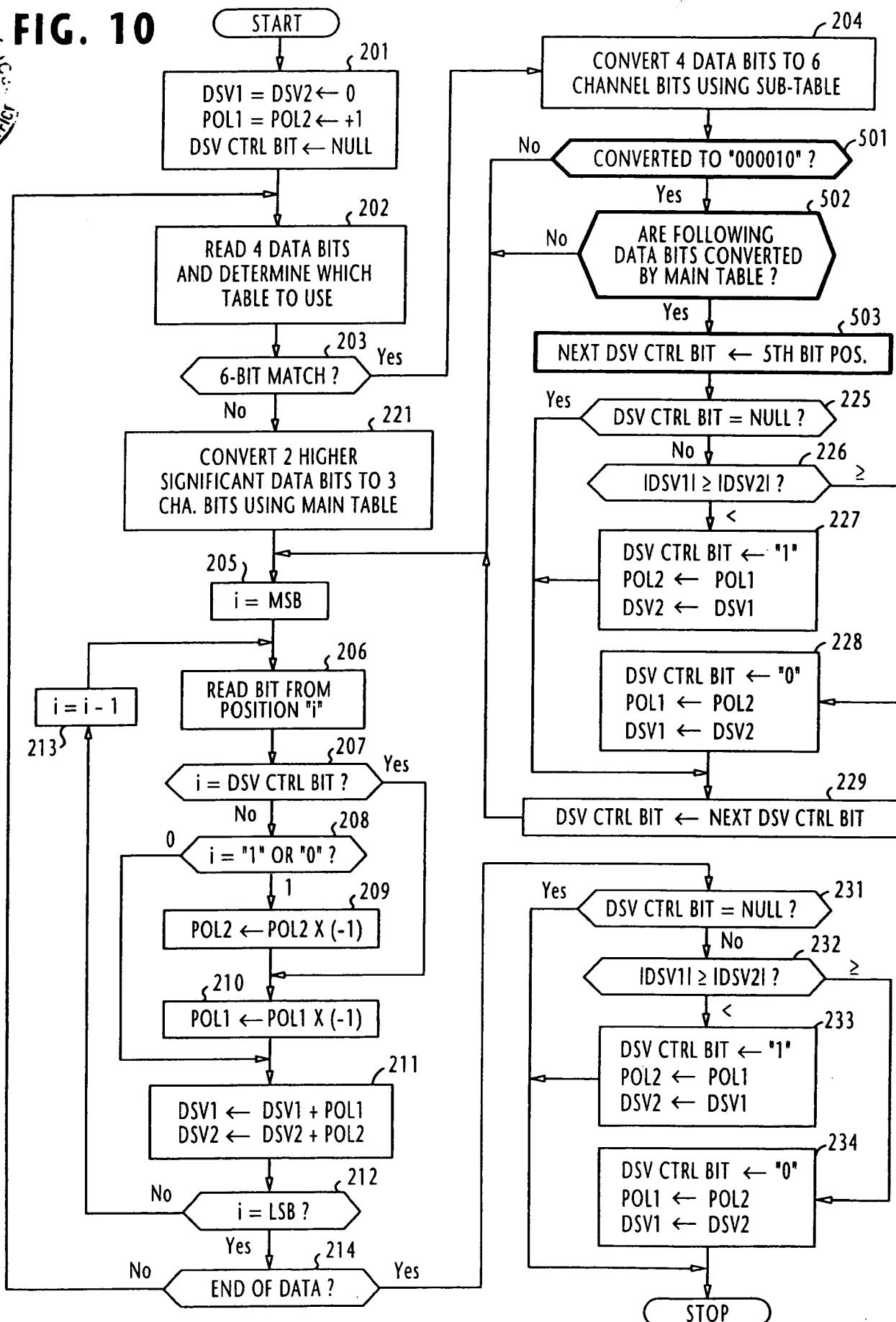




FIG. 12

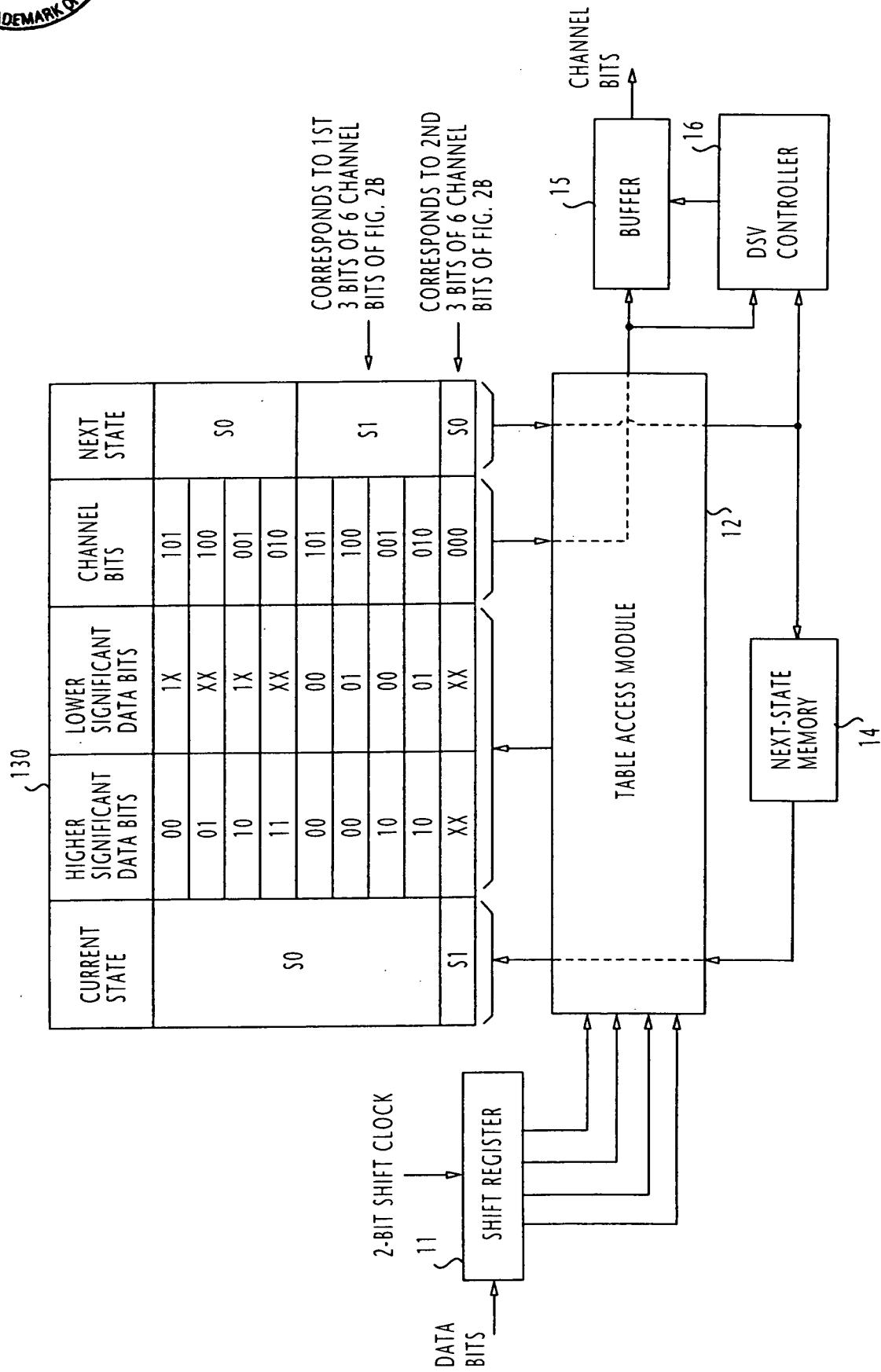




FIG. 13

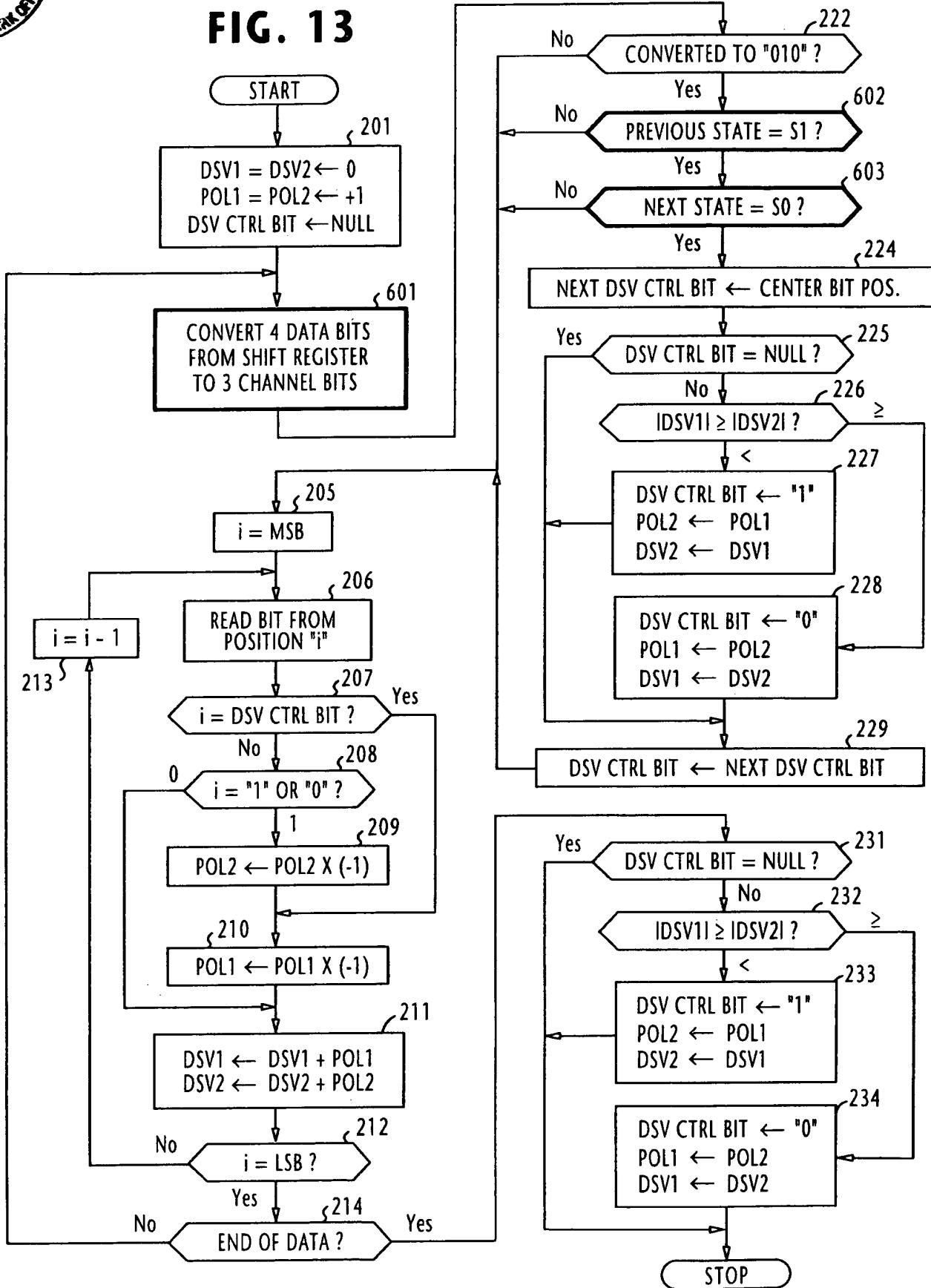
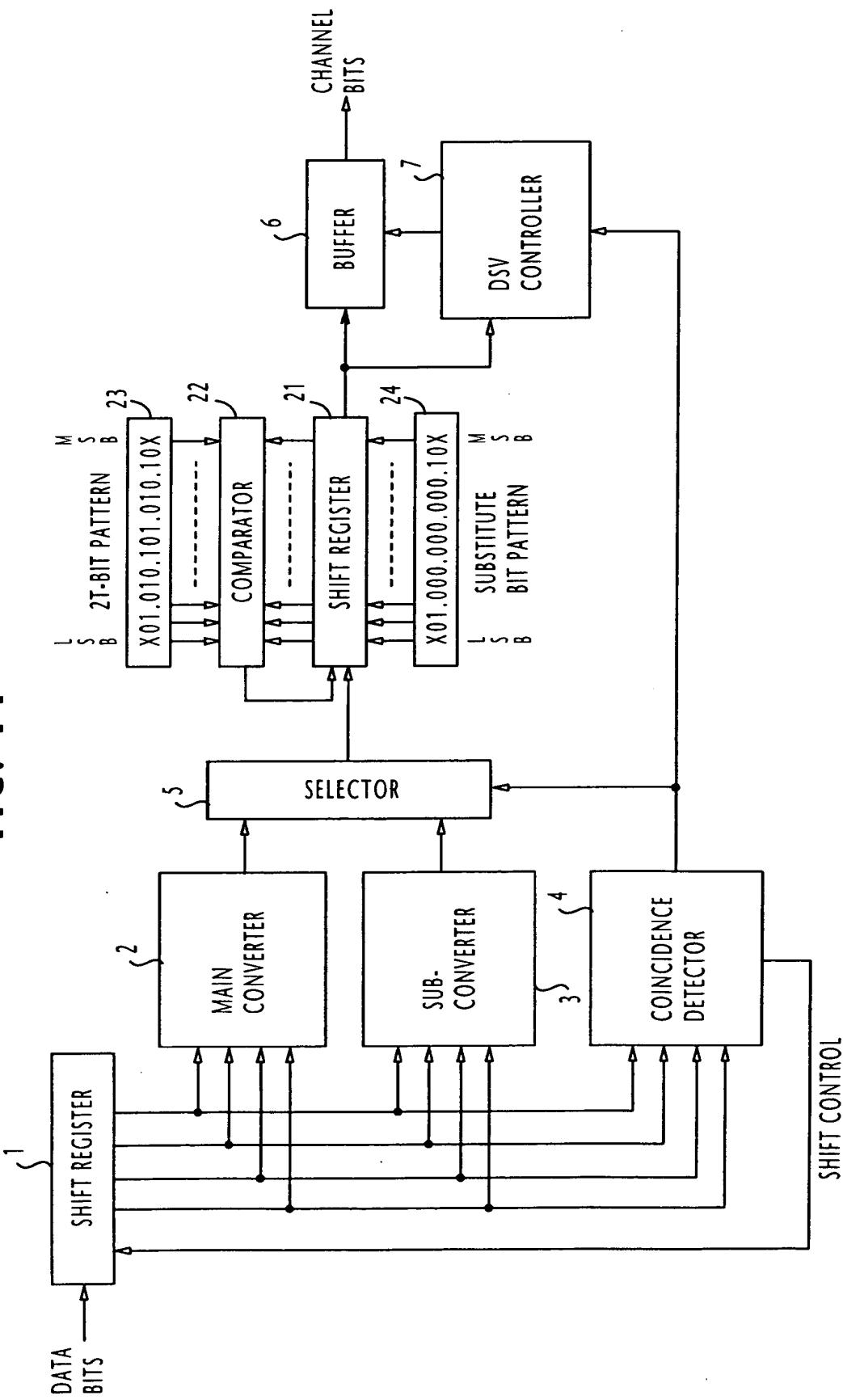




FIG. 14





Title: DATA MODULATION
METHOD AND APPARATUS
Inventor(s): Kinji KAYANUMA
Appl. No.: 10/642,749

NE-1148

FIG. 15A

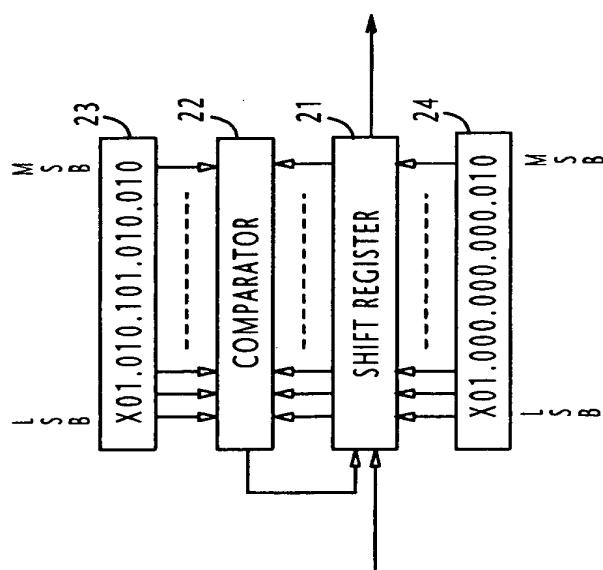


FIG. 15B

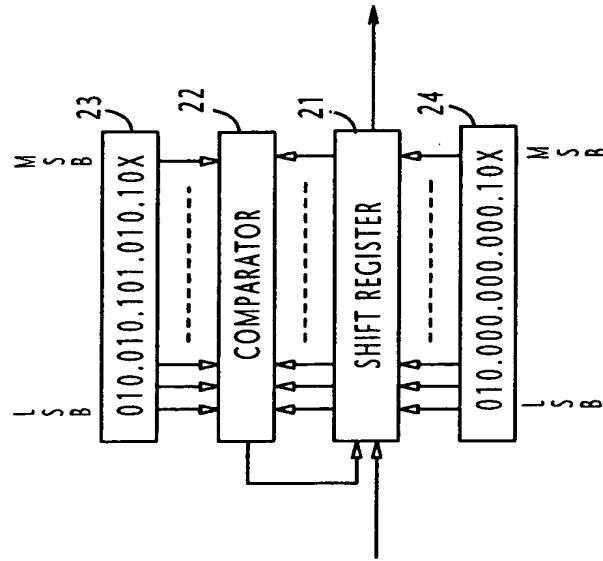
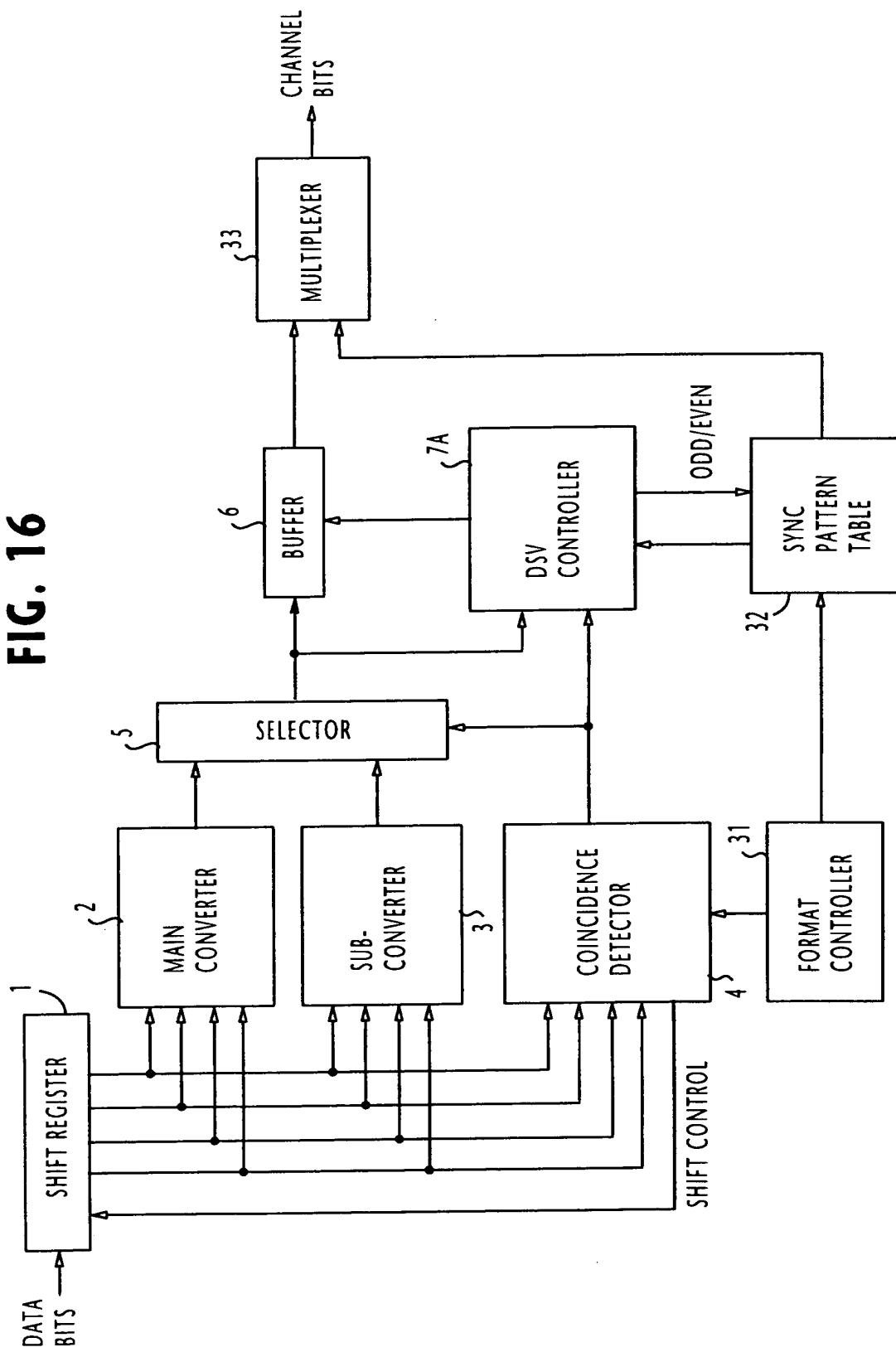




FIG. 16





Title: DATA MODULATION
METHOD AND APPARATUS
Inventor(s): Kinji KAYANUMA
Appl. No.: 10/642,749

NE-1148

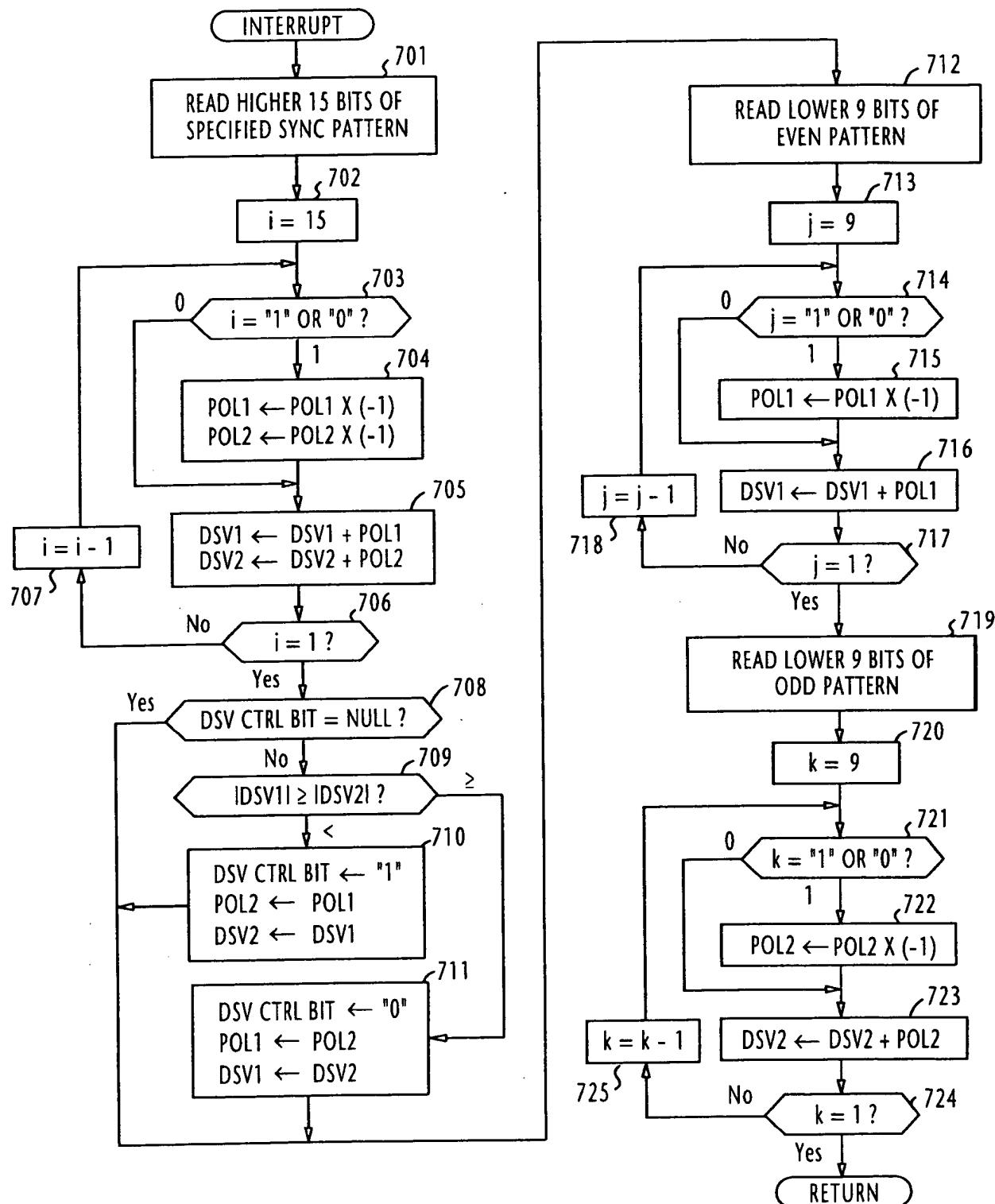
FIG. 17

{
32

	EVEN	ODD
SY0	010.000.000.000.001.000.000.001.010	010.000.000.000.000.001.000.000.001.000
SY1	010.000.000.000.001.000.100.010	010.000.000.000.000.001.000.100.000
SY2	010.000.000.000.001.010.000.010	010.000.000.000.000.001.010.100.010
SY3	010.000.000.000.001.000.010.100	010.000.000.000.000.001.010.010.100
SY4	010.000.000.000.001.001.000.100	010.000.000.000.000.001.010.101.000
SY5	010.000.000.000.001.000.101.000	010.000.000.000.000.001.000.101.010
SY6	010.000.000.000.001.010.001.000	010.000.000.000.000.001.010.001.010
SY7	010.000.000.000.001.001.010.000	010.000.000.000.001.001.010.010.010



FIG. 18

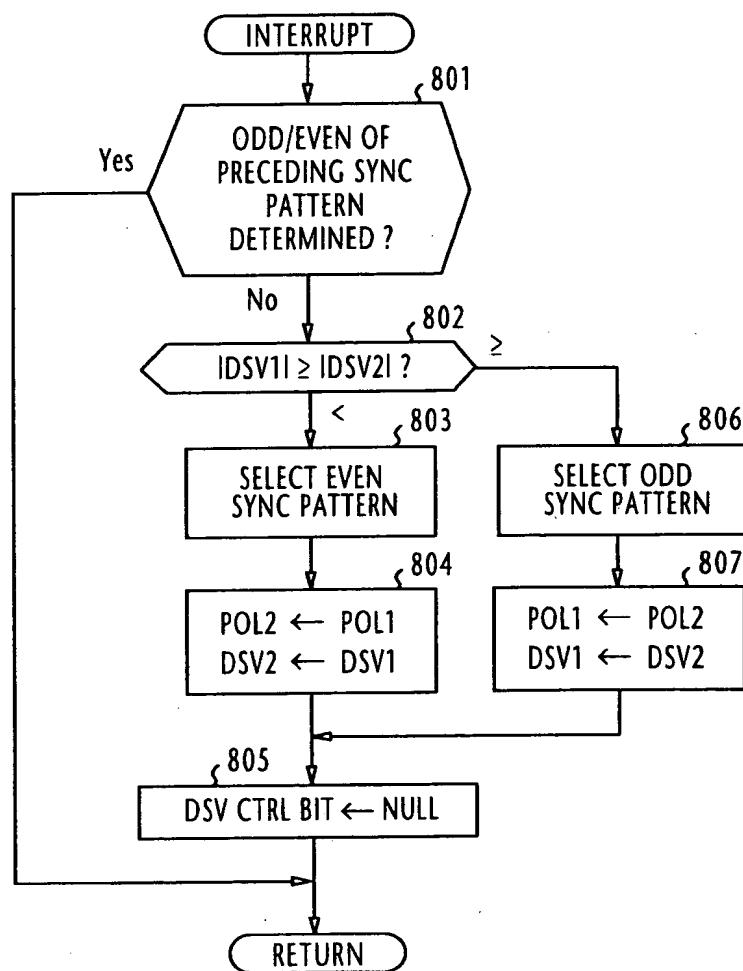




Title: DATA MODULATION
METHOD AND APPARATUS
Inventor(s): Kinji KAYANUMA
Appl. No.: 10/642,749

NE-1148

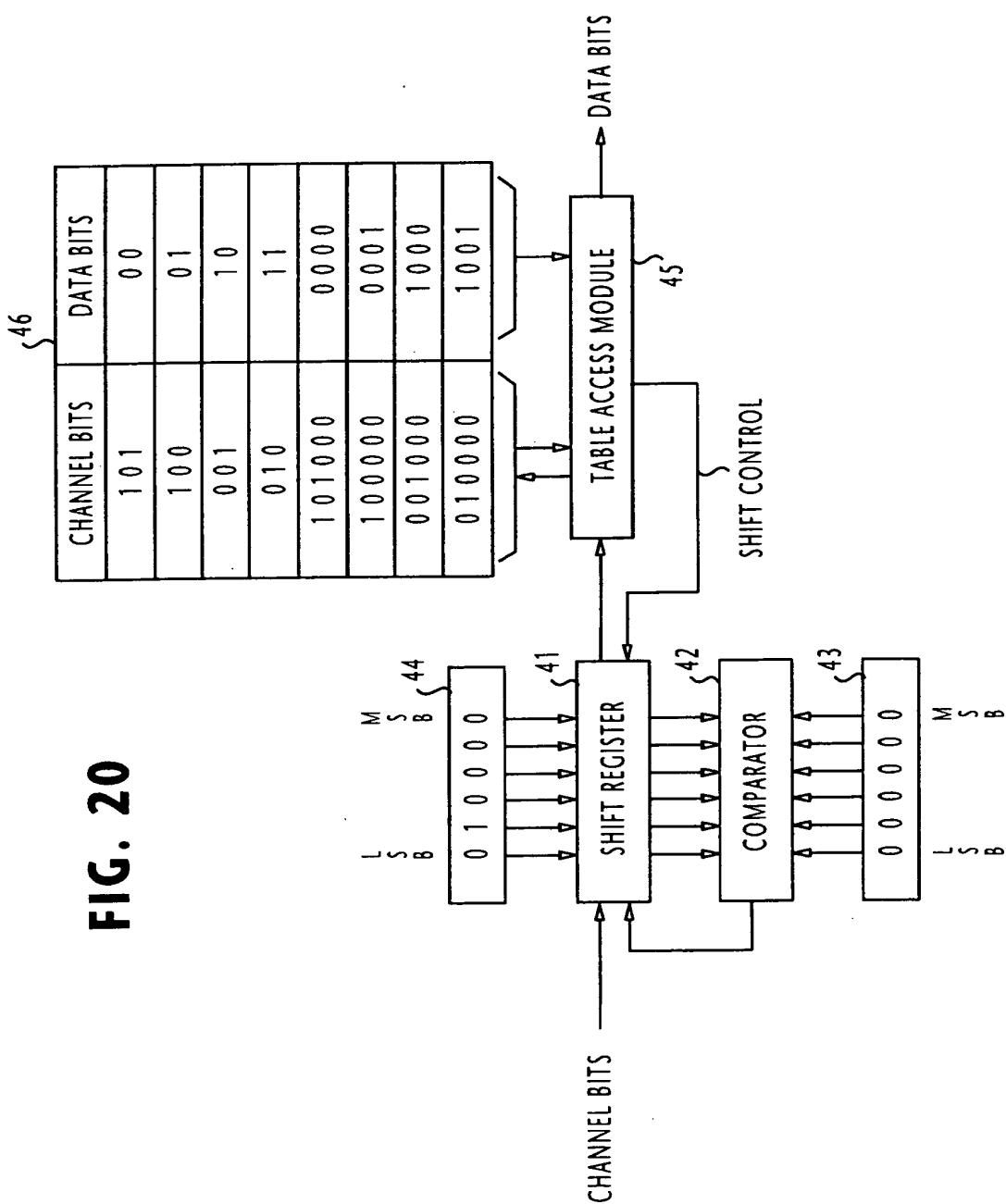
FIG. 19





Title: DATA MODULATION
METHOD AND APPARATUS
Inventor(s): Kinji KAYANUMA
Appl. No.: 10/642,749

NE-1148





Title: DATA MODULATION
METHOD AND APPARATUS
Inventor(s): Kinji KAYANUMA
Appl. No.: 10/642,749

NE-1148

FIG. 21

